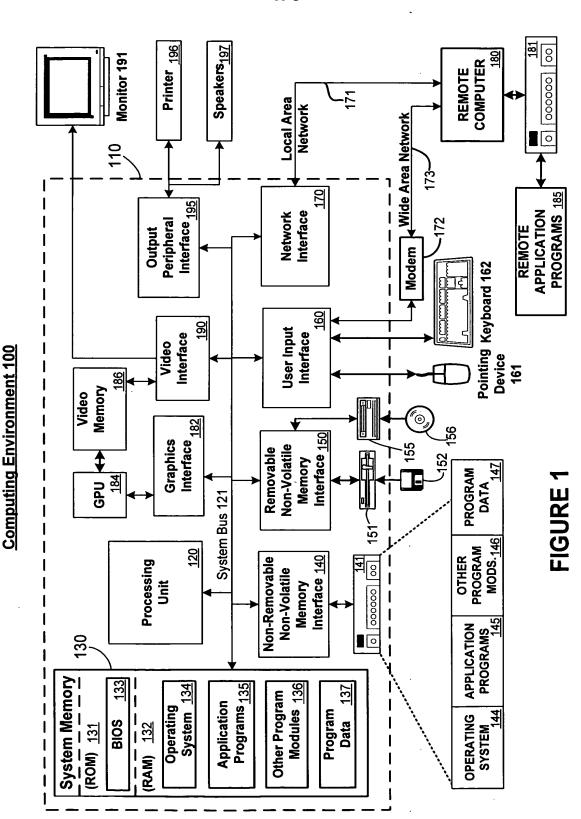Docket No.: MSFT-2746/302034.01
App No.: Not Yet Assigned   Filed: Herewith
Title: SYSTEMS AND METHODS FOR USING METRICS TO CONTROL THROTTLING
AND SWAPPING IN A MESSAGE PROCESSING SYSTEM
Inventors: Yossi Levanoni, et al.
Attorney: Christos A. Ioannidi   Phone: (215) 568-3100
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FIGURE 1

Docket No.: MSFT-2746/302034.01
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Attorney: Christos A. Ioannidi   Phone: (215) 568-3100
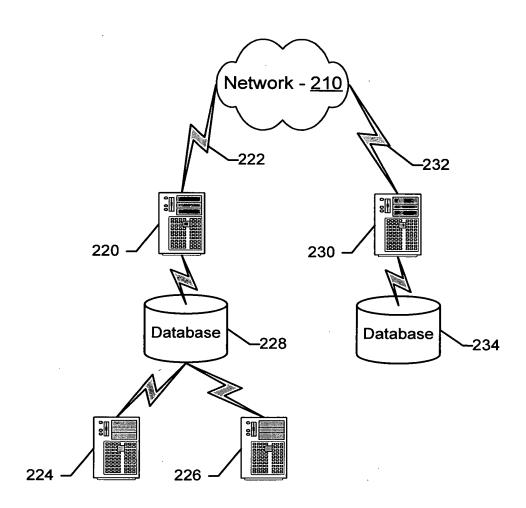Sheet 2 of 6

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FIGURE 2

FIGURE 3

Docket No.: MSFT-2746/302034.01
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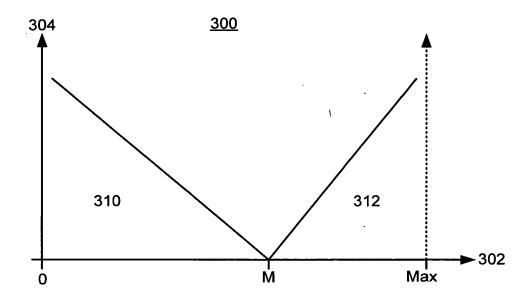Attorney: Christos A. Ioannidi   Phone: (215) 568-3100
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Engine - 400

Instance - 401

Dehydration
Controller -
403

404a

404b

Transport -
420

424a

424b

Message Agent - 430
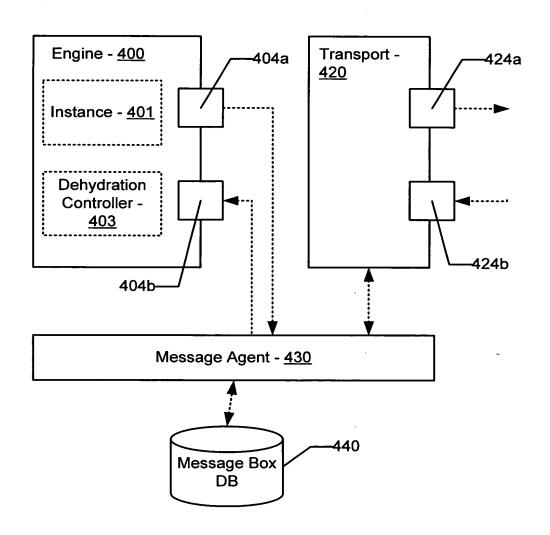
Message Box
DB

440

FIGURE 4

Docket No.: MSFT-2746/302034.01
App No.: Not Yet Assigned   Filed: Herewith
Title: SYSTEMS AND METHODS FOR USING METRICS TO CONTROL THROTTLING
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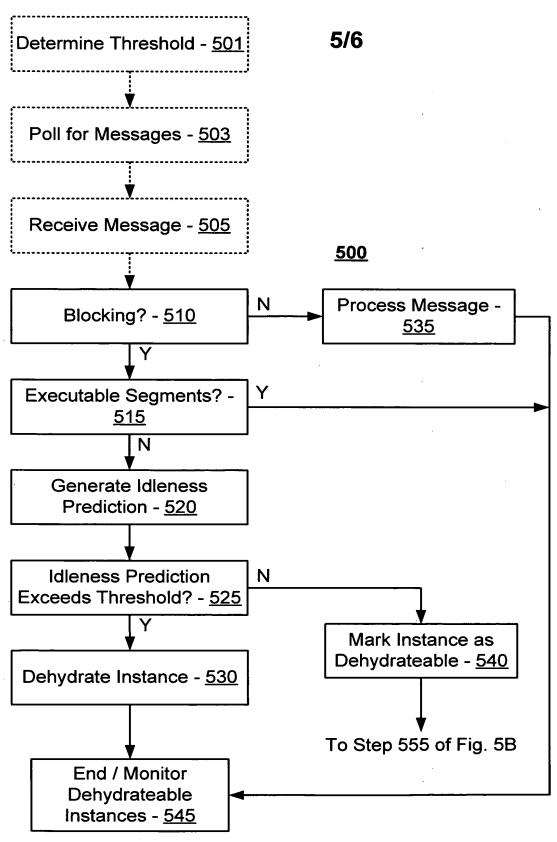Sheet 5 of 6

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Determine Threshold - <u>501</u>

↓

Poll for Messages - <u>503</u>

↓

Receive Message - <u>505</u>

<u>500</u>

↓

Blocking? - <u>510</u> —— N ——→ Process Message - <u>535</u>

Y ↓

Executable Segments? - <u>515</u> —— Y ——→

N ↓

Generate Idleness Prediction - <u>520</u>

↓

Idleness Prediction Exceeds Threshold? - <u>525</u> —— N ——→ Mark Instance as Dehydrateable - <u>540</u>

Y ↓   ↓

Dehydrate Instance - <u>530</u>   To Step 555 of Fig. 5B

↓

End / Monitor Dehydrateable Instances - <u>545</u>

FIGURE 5A

From Step 550 of Fig. 5A

500

Retrieve Idleness
Prediction - **555**

Idleness Prediction
Exceeds Threshold? - **560**   N →   Leave in Active
Memory - **570**

Y

Queue Dehydration
Request - **565**

FIGURE 5B